

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Amendment of the Commission's Rules)	
Regarding Maritime Automatic Identification)	WT Docket No. 04-344
Systems)	
)	
Petition for Rule Making Filed by National)	RM-10821
Telecommunications and Information)	
Administration)	
)	
Emergency Petition for Declaratory Ruling Filed)	
by MariTEL, Inc.)	

REPLY COMMENTS OF ORBCOMM INC.

ORBCOMM Inc. ("ORBCOMM"), through its attorneys, hereby responds to some of the comments filed in response to the Commission's proposals to modify its rules in support of maritime Automatic Identification Systems ("AIS").¹ As explained in greater detail below, ORBCOMM urges the Commission to limit non-AIS use of VHF maritime Channels 87B (161.975 MHz) and 88B (162.025 MHz) in order to ensure that the VHF Public Coast stations or any other operators cause no interference to AIS. Moreover, use of these two channels is consistent with global allocations, and will thus facilitate international coordination of monitoring activities of the Coast Guard with other nations. Such a decision would thus well serve the public interest, because AIS is a critical component of the Coast Guard's homeland security and public safety activities.

¹ *Amendment of the Commission's Rules Regarding Maritime Automatic Identification Systems*, FCC 04-207, released October 15, 2004 (hereafter "*NPRM*").

ORBCOMM is a wireless telecommunications company that provides reliable, cost effective data communications services to customers around the world through its unique low-earth orbit (“LEO”) satellite network and global ground infrastructure. A diverse customer base uses ORBCOMM services to track, monitor and control mobile and fixed assets including trucks, containers, barges, fishing vessels, locomotives, heavy machinery, pipelines, oil wells, energy meters and storage tanks anywhere in the world.

Of particular relevance to this proceeding, ORBCOMM is working with the Coast Guard to develop and supply AIS capability over its global satellite system.² Such an extension of the Coast Guard’s AIS capability will significantly expand the Coast Guard’s ability to identify and track ships beyond the limited range of terrestrial monitors. Moreover, the unique design of ORBCOMM’s low-earth orbit satellite system will provide this functionality efficiently and economically.

There can be no legitimate dispute with regard to the importance of AIS. As the Commission recognized in the *NPRM*, AIS is an integral component of Maritime Domain Awareness – the Coast Guard’s responsibility to monitor vessels as part of its homeland security duties.³ As detailed in the Comments submitted by the National Telecommunications and Information Administration (“NTIA”), AIS is essential to support the Coast Guard’s efforts to utilize maritime domain awareness to protect our marine transportation system, and to deny terrorists’ use or exploitation of those

² See *Press Release*, “ORBCOMM Receives U.S. Coast Guard Contract to Develop Satellite Technology,” June 3, 2004 (available at http://www.orbcomm.com/wwwroot/public/news/readNewsArticle.jsp?ARTICLE_ID=80). NTIA alludes to this agreement in its Comments at p. 24.

³ *NPRM* at ¶ 7.

systems.⁴ AIS will assist the Coast Guard in saving lives, assisting people in distress, interdicting illegal immigrants and illicit drugs, responding to spills and inspecting foreign vessels (as required by the Maritime Transportation Security Act of 2002). Indeed, even Maritel acknowledges the “very important AIS services” that this spectrum supports.⁵

ORBCOMM’s integration of AIS capabilities into its LEO satellite system pursuant to the contract with the Coast Guard will significantly extend the Coast Guard’s ability to monitor vessels on a truly global basis. As NTIA indicated in its Comments, the Coast Guard’s operational goal is persistent wide area surveillance of passenger and cargo vessels over 65’ in length within 2,000 nautical miles of the United States, a mandate of the Maritime Transportation Security Act of 2002.⁶ ORBCOMM’s satellite system is uniquely capable of fulfilling that mission – terrestrial stations simply cannot provide such reach.

However, as a result of the areas monitored by the ORBCOMM satellites – their receive “footprints” -- it is critical that the Commission limit non-AIS use of Channels 87B and 88B throughout the United States, not merely in the nine maritime VHF Public Coast (“VPC”) areas. Due to the satellite receive antenna design and the altitude of the satellites, the ORBCOMM satellite receivers will pick up signals over a circular area

⁴ NTIA Comments at pp. 7-8.

⁵ See, Undated Letter from Dan Smith (President – MariTEL) to Albert Jacquez (Saint Lawrence Seaway Administrator), appended to the letter from Craig Middlebrook, dated December 21, 2004 and filed in this proceeding.

⁶ NTIA Comments at p. 24. *See also*, Testimony of Mr. Jeffrey P. High before the Subcommittee on Coast Guard & Maritime Transportation, U.S. House of Representatives, October 6, 2004.

approximately 2,700 nautical miles across. In addition, as a result of the LEO deployment, ORBCOMM's satellites' footprints constantly move relative to the surface of the earth, and therefore cannot be designed to encompass only the U.S. shorelines and the high seas. Thus, there will be many times that ORBCOMM's satellite receive footprint will extend significantly inland while simultaneously covering ships at sea.⁷ As a consequence, if Channels 87B and 88B are only cleared in the coastal regions (VPC areas 1-9), the ORBCOMM satellites would pick up non-AIS signals, and be unable to monitor AIS signals because of such unwanted "noise" and congestion. This would make it difficult, if not impossible for the Coast Guard to fulfill its wide area surveillance goal, and hamper its homeland security and public safety mission. ORBCOMM thus fully supports NTIA's request that the Commission limit non-AIS transmissions on Channels 87B and 88B throughout the country.

WHEREFORE, ORBCOMM urges the Commission to modify its rules consistent with the proposals in the *NPRM* and the Comments of NTIA.

Respectfully submitted,

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⁷ Moreover, facilitating ORBCOMM's AIS reception throughout the country would also allow integrated monitoring of ships on navigable waters within the United States, not just ocean-going vessels.